Analog LCD Monitor

AL1502 User's Manual

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide resonable protection against radio frequency interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications. However, there is no guarantee that intereference will not occur in a particular installation. If this equipment does cause interference to radio or television reception (this can be determined by turning this equipment off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between this equipment and the receiver.
- Connect this equipment to an outlet on a circuit different from which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

Caution:

To comply with the limits for an FCC Class B computing device, always use the shielded signal cable supplied with this unit.

Caution to the user:

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice of Compliance Canadian
Interference-causing Equipment Regulations

DOC Compliance Notice:

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

DOC Avis de Conformation

Le présent appareil numérique n'emet pas de bruits radioélectriques dépassant les limites applicable aux appareils numériques de la class B prescrites dan le Réglement sur le brouillage radioélectriques édicté par le ministére des Communications du Canada.

INTRODUCTION

Congratulations for purchasing model AL1502, a high performance 15-inch color TFT LCD monitor. The AL1502 monitor provides flicker-free and color images at optional resolutions. Through this user guide, we will introduce you step-by-step all the features, functions and technical specifications of the LCD monitor. Surely you will have a refreshing experience working with the monitor.

FEATURES

The AL1502 is a 15-inch TFT LCD monitor that is intelligent, microprocessor-based and ergonomically designed display, compatible with most analog RGB (Red, Green, Blue) display standards, including PS/V, PS/2, optional for Apple Macintosh Centris, Quadra, and Macintosh II family signals. The LCD monitor is capable of displaying crisp and vibrant color graphics with VGA, SVGA, XGA (non-interlaced), and most Macintosh compatible color video cards.

- The monitor is able to properly function even in case of upgrade video cards or software because of the wide auto-scanning compatibility range without requiring to buy a new monitor.
- The internal microprocessor digitally controls auto-scanning. For horizontal scan frequencies between 30 KHz and 61 KHz, and vertical scan frequencies between 55 Hz and 76 Hz. In each frequency mode, the microprocessor-based circuitry allows the monitor to function at the precision-of a fixed frequency.
- The resident memory allows for storing factory default settings and also additional user adjustment parameters.
- The maximum resolution achievable is XGA (1024 x 768), best suited for Windows applications
- The compact and sleek cabinet design saves lot of your desk space and makes your desk look neat and tidy.
- The monitor is also compliant with the most stringent environmental scheme of TCO 99. In this scheme, no environmental harmful substances are used during the entire manufacturing process.

UNPACKI G

Please check t follow e present when you unpack the box, and save the packing materi in cas d to ship or transport the monitor in future.· AC Power Cor

- CD Mon

User Manual

Audio Cable·

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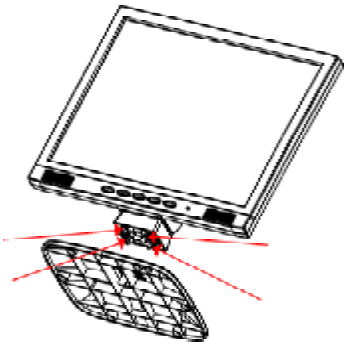
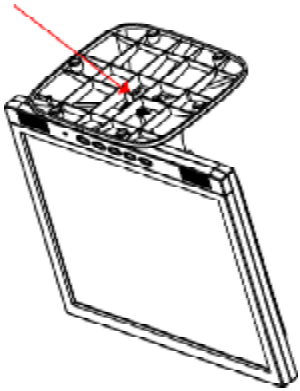
Speakers

Attaching / Removing the Base

Align the four hooks on the bottom of the monitor with the corresponding slots on the bottom of the base.



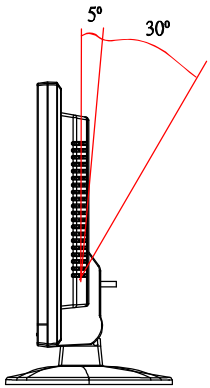
Depress the hook as indicated first before removing the base and follow the arrow direction to remove it.



SCREEN POSITION ADJUSTMENT

In oder to optimize the best viewing position, you can adjust the tilt of the monitor by using both of your hands to hold the edges of the monitor as shown in the figure below.

The monitor can be adjusted to 30 degrees up or 5 degrees down as indicated by arrow below.



CONNECTING THE POWER CORD

- Check first to make sure that the power cord you use is the correct type required for your area.
- This monitor has a universal power supply that allows operation in either 100/120V AC or 220/240 V AC voltage area. No user-adjustment is required.
- Plug one end of the power cord to the AC Inlet, plug another end to a proper AC outlet.
- For unit using at 120 V AC:
  Use a UL Listed Cord Set, Type SVT wire and plug rated 10 A/125 V.
- For unit using at 220/240 V AC (outside of U.S.):
  Use a Cord Set consisting of H05VV-F cord and plug rated 10 A, 250 V. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

SAFETY PRECAUTION

- ***Avoid placing the monitor, or any other heavy object, on the power cord to avoid damage to the cable.***
- ***Do not expose the monitor to rain, excessive moisture, or dust.***
- ***Do not cover the ventilation slots or openings of the monitor. Always put the monitor in a place where there is adequate ventilation.***
- ***Avoid placing the monitor against a bright background or where sunlight or other light sources may reflect on the face of the monitor. Place the monitor just below eye level.***
- ***Handle with care when transporting the monitor.***
- ***Refrain from giving shock or scratch to the screen, as screen is fragile.***

CLEANING YOUR MONITOR

Please carefully follow the below guidelines when cleaning the monitor.

- Always unplug the monitor before cleaning.
- Use a soft cloth to wipe the screen and cabinet front and sides.
- Apply a small quantity of alcohol to a soft cloth to clean the monitor screen, if requires more than dusting.

PRESET MODES

To reduce the need for adjustment for different modes, the monitor has default setting modes that are most commonly used as given in the table below. For optimum adjustment, the user is suggested to perform the Auto Setup under Windows "Full Screen" pattern. If the mode in use does not match one of the defaults, the user can store their preferred modes in the user modes. The monitor is capable of storing up to 9 user modes. The only condition to store as a user mode is the new display information must have 1 KHz difference for horizontal frequency or 1 Hz for vertical frequency or the sync signal polarities are different from the default modes.

Mode	Resolution		H. Freq. (KHz)	Band Width (MHz)	Polarity	
					H	V
1	VGA	720 x 350 70 Hz	31.47	28.322	+	-
2	VGA	720 x 400 70 Hz	31.47	28.322	-	+
3	VGA	640 x 480 56 Hz	24.83	21.053	-	-
4	VGA	640 x 480 60 Hz	31.47	25.175	-	-
5	MAC	640 x 480 66 Hz	35.00	32.24	-	-
6	VESA	640 x 480 72 Hz	37.86	31.5	-	-
7	VESA	640 x 480 75 Hz	37.50	31.5	-	-
8	VESA	800 x 600 56 Hz	35.16	36	+	+
9	VESA	800 x 600 60 Hz	37.88	40	+	+
10	VESA	800 x 600 75 Hz	46.88	49.5	+	+
11	VESA	800 x 600 72 Hz	48.08	50	+	+
12	MAC	832 x 624 75 Hz	49.72	57.283	-	-
13	VESA	1024 x 768 60 Hz	48.36	65	-	-
14	SUN	1024 x 768 65 Hz	52.45	70.49	-	-
15	VESA	1024 x 768 70 Hz	56.48	75	-	-
16	VESA	1024 x 768 75 Hz	60.02	78.75	+	+

POWER SAVING

The monitor will be driven into "Power Saving" mode by the control signal from the display controller, as indicated by the amber-color power LED.

State	Power Consumption	LED Light
ON	Normal	Green
Active OFF	< 3 W	Amber

The power saving states will be kept until a control signal has been detected or the keyboard or mouse is activated. The recovery time from Active OFF state back to ON state is around 3 seconds.

DDC

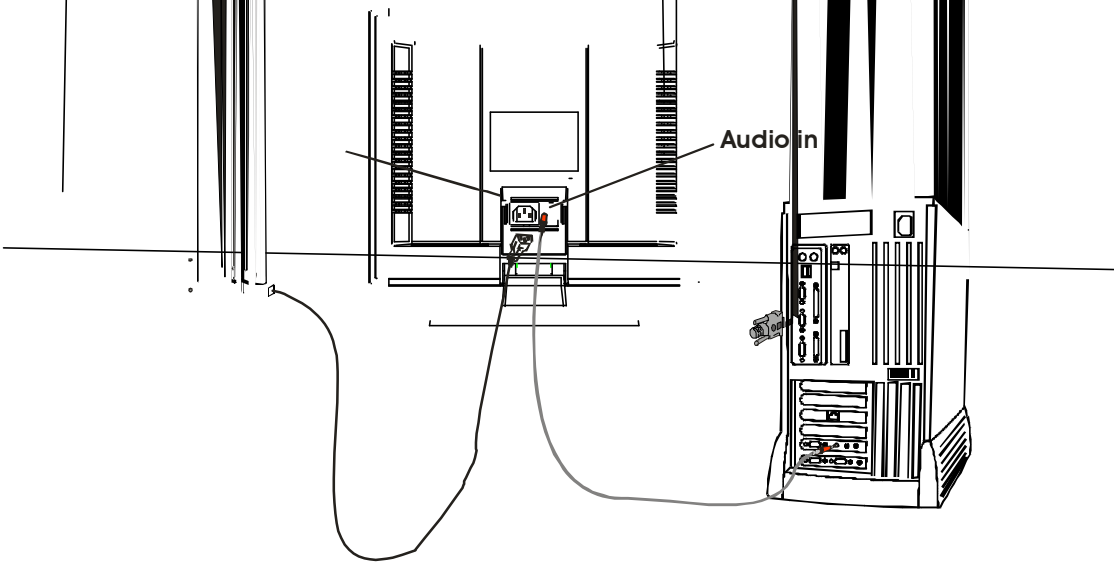
To make your installation easier, the monitor is able to Plug and Play with your system if your system also supports DDC protocol. The DDC (Display Data Channel) is a communication protocol through which the monitor automatically informs the host system about its capabilities, for example, supported resolutions and corresponding timing. The monitor supports DDC2B standard.

INSTALLATION

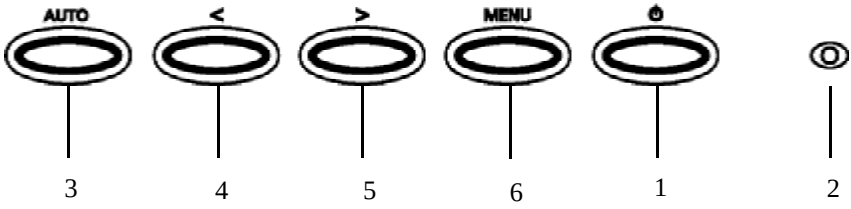
To install the monitor to your host system, please follow the steps as given below:

Steps

1. Connect Video Cable
   a. Make sure both the monitor and computer are powered-OFF.
   b. Connect the video cable to the computer.
2. Connect power cord
   Connect the power cord to the monitor, then to a properly grounded AC outlet.
3. Connect the Audio Cable.
4. Power-ON Monitor and Computer
   Power-ON the monitor first, then power-ON the computer.
   This sequence is very important.
5. If the monitor still does not function properly, please refer to the troubleshooting section to diagnose the problem.



USER CONTROLS



1. Power Switch:

To turn ON or OFF the power.

2. Power LED:

Lights up to indicate the power is turned ON.

3. Auto Adjust button / Exit:

1) When OSD menu is in active status, this button will act as EXIT-KEY (EXIT OSD menu).

2) When OSD menu is in off status, press this button for 2 seconds to activate the Auto Adjustment function.

The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus.

4. </Volume:

Activates the volume control when the OSD is OFF or navigate through adjustment icons when OSD is ON or adjust a function when function is activated.

5. >/Volume:

Activates the volume control when the OSD is OFF or navigate through adjustment icons when OSD is ON or adjust a function when function is activated.

6. MENU/ENTER:

Activate OSD menu when OSD is OFF or activate/de-activate adjustment function when OSD is ON or Exit OSD menu when in Volume Adjust OSD status.

1. Press the MENU-button to activate the OSD window.
2. Press < or > to select the desired function.
3. Press the MENU-button to select the function that you want to adjust.
4. Press < or > to change the settings of the current function.
5. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-4.

The descriptions for function control LEDS

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		Contrast	Adjusts the contrast between the foreground and background of the screen image.
		Brightness	Adjusts the background brightness of the screen image.
		Focus	Adjusts picture Focus
		Clock	Adjusts picture Clock

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position.
		V. Position	Adjust the vertical position.
	N/A	Warm	Set the color temperature to warm white.
	N/A	Cool	Set the color temperature to cool white.
	R	User /Red	Adjusts Red/Green/Blue intensity.
	G	User/Green	
	B	User/Blue	
	N/A	English	Multi-language selection.
	N/A	繁體中文	
	N/A	Deutsch	
	N/A	Francais	
	N/A	Espanol	
	N/A	Italiano	
	N/A	简体中文	
	N/A	日本語	

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position of the OSD.
		V. Position	Adjust the vertical position of the OSD.
		OSD Timeout	Adjust the OSD timeout.
	N/A	Auto Config	Auto Adjust the H/V Position, Focus and Clock of picture.
	N/A	Information	Show the resolution, H/V frequency and input port of current iput timing.
	N/A	Reset	Clear each old status of Auto-configuraation and set the color temperature to Cool.
	N/A	Exit	Save user adjustment and OSD disappear.

TROUBLESHOOTING

Before sending your LCD monitor for servicing, please check the troubleshooting list below to see if you can self-diagnose the problem.

Problems	Current Status	Remedy
No Picture	LED ON	Using OSD, adjust brightness and contrast to maximum or reset to their default settings.
	LED OFF	Check the power switch.
		Check if AC power cord is properly connected to the monitor.
	LED displays amber color	Check if video signal cable is properly connected at the back of monitor.
		Check if the power of computer system is ON.
Abnormal Picture	Unstable Picture	Check if the specification of graphics adapter and monitor is in compliance which may be causing the input signal frequency mismatch.
	Display is missing, center shift, or too small or too large in display size	Using OSD, adjust RESOLUTION, CLOCK, CLOCK-PHASE, H-POSITION and V-POSITION with non-standard signals.
		Using OSD, in case of missing full-screen image, please select other resolution or other vertical refresh timing.
		Wait for a few seconds after adjusting the size of the image before changing or disconnecting the signal cable or powering OFF the monitor.
Abnormal Sound	No sound, or sound level is too low	Check the audio cable with the host PC is connected.
		Check if the volume setup of the host PC is in minimum position and try to raise the volume level.

SPECIFICATION

LCD Panel	Driving system	TFT Color LCD
	Size	38.1cm(15.0")
	Pixel pitch	0.297mm(H)x 0.297mm(V)
	Brightness	250cd/m2 (Typical)
	Contrast	350:1(Typical)
	Viewable angle	140^0 (H) 125^0 (V)
	Response time	25 ms
	Video	R,G,B Analog Interface
	H-Frequency	30KHz - 61KHz
	V-Frequency	55-76Hz
Display Colors		16.2M Colors
Dot Clock		80MHz
Max. Resolution		1024 x 768 @75Hz
Plug & Play		VESA DDC/DDC2B
EPA ENERGY STAR	ON Mode	≤30W
	OFF Mode	≤ 3W
Input Connector		D-Sub 15pin
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive
Maximum Screen Size		Horizontal : 304.1mm Vertical : 228.1mm
Power Source		100~240VAC,47~63Hz

Environmental Considerations		Operating Temp: 5^0 to 35^0C Storage Temp.: -20^0 to 60^0C Operating Humidity: 10% to 85%
Dimensions		340(W) x 326(H) x 180(D)mm
Weight (N. W.)		3.5kg Unit (net)
External Controls:	Switch	Auto Adjust Key >/ Volume </Volume Power Button MENU/ Exit
	Functions	Contrast Brightness Focus Clock H.Position V.Position Language Auto configuration (Warm) Color (Cool) Color RGB Color temperature Reset OSD position . timeout Display information Exit
Power Consumption (Maximum)		30 Watts
Audio Output		Rated Power 1.5W rms (Per channel)
Regulatory Compliance		CUL, FCC, VCCI, CCC, MPR II, CE, TUV/GS, TCO'99, UL, ISO13406-2

* All specifications are subject to change without notice.